

**REMARKS**

An excess claim fee payment letter is submitted herewith for one (1) excess total claim.

Claims 1-22 and 26 are all the claims presently pending in the application. Claims 1, 9, 18, and 23 have been amended to more particularly define the invention. Claim 26 has been added to claim additional features of the invention. Claims 23-25 are withdrawn as non-elected.

It is noted Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicant gratefully acknowledges that claims 6 and 17 would be allowable if rewritten in independent form. However, Applicant respectfully submits that all of the pending claims are allowable.

Claims 1, 4, 9, 10, 13, 18, and 19 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent Publication No. US 2003/0107363 to Tsironis. Claims 3, 7, 8, 14, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsironis, further in view of US Patent 6,828,768 to McTigue. Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsironis, further in view of US Patent 5,959,512 to Sherman. Claims 2, 5, 11, 12, 16, 20, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsironis/McTigue, further in view of US Patent 3,392,354 to Plutchok. These rejections are respectfully traversed in the following discussion.

**I. THE CLAIMED INVENTION**

As described in, for example claim 1, the claimed invention is directed to a coplanar waveguide (CPW) probe assembly including at least one center probe element, each having a

respective center probe contact point and at least one peripheral probe element, each having a respective peripheral contact point. A pitch of the at least one center contact and the at least one peripheral contact is adjustable and an electrical impedance of said probe is substantially constant as said pitch is adjusted.

In a second aspect as described in, for example, claim 9, the present invention is also directed to a test probe assembly including a micro-coaxial cable having at least one center conductor and a conductive outer wall. A probe tip section includes at least one center contact, each respectively extending from one of the at least one center conductor, and at least one peripheral contact, each connected to the conductive outer wall at a predetermined distance from an end of the conductive outer wall in a manner to provide a flexure between the peripheral contact and the conductive outer wall. A pitch between the at least one center contact and the at least one peripheral contact is adjustable because of the flexure.

Conventional probes such as described beginning at line 20 on page 1 of the specification are fixed pitch probes and are expensive.

The claimed invention, on the other hand, provides a microwave probe that has an adjustable pitch to accommodate a range of pad pitches with minimal degradation in the microwave performance, including a substantially constant impedance over the variation of the pitch.

## **II. THE PRIOR ART REJECTIONS**

The Examiner alleges that Tsironis teaches the claimed invention defined by claims 1, 4, 9, 10, 13, 18, and 19, and, when modified by McTigue, renders obvious claims 3, 7, 8, 14, and 15, when modified by Sherman, renders obvious claim 22, and, when modified by

Plutchok, renders obvious claims 2, 5, 11, 12, 16, 20, and 21.

Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by Tsironis.

Although Tsironis discloses in one embodiment shown in Figures 5 and 6 that shows adjustable probe elements, the separation of these probe elements is for the purpose of adjusting the impedance of the probe, as explained in paragraph [0052]: “... *as such then also the distance between the central conductor of the CPWG structure (24) and the side walls (23) can be adjusted to provide any characteristic impedance as required by the test devices (10) (typically 50 ohm).*”

In contrast, the present invention is intended as maintaining substantially constant the impedance of the probe as the pitch is varied. This is achieved, at least in part, because of the shorting element, serving as a spring mechanism in exemplary embodiments, that provides an electrical contact substantially adjacent to the point of the center probe element.

Hence, turning to the clear language of the claims, in Tsironis there is no teaching or suggestion of: “...wherein a pitch of said at least one center contact and said at least one peripheral contact is adjustable and an electrical impedance of said probe is substantially independent of said pitch”, as required by claim 1. Independent claim 18 has similar language.

For this reason alone, claims 1-8 and 18-22 are clearly patentable over Tsironis.

Relative to independent claim 9, Tsironis fails to show a key feature of the present invention wherein the peripheral probe element is connected to the outer wall of the coaxial cable a predetermined away from the end of the cable, in order to provide flexure of the peripheral probe element.

Hence, turning to the clear language of the claims, in Tsironis there is no teaching or suggestion of: “...connected to said conductive outer wall at a predetermined distance from an end of said conductive outer wall in a manner to provide a flexure between the peripheral contact and said conductive outer wall ....”

For this reason alone, claims 9-17 and 26 are clearly patentable over Tsironis.

Therefore, Applicant submits that there are elements of the claimed invention that are not taught or suggest by Tsironis. Therefore, the Examiner is respectfully requested to withdraw this rejection.

Moreover, relative to the urged modification of primary reference Tsironis by secondary references McTigue, Sherman, and Plutchok, Applicant submits that one of ordinary skill in the art would clearly recognize that each of these secondary references operate with a principle of operation entirely different from the principle of operation of Tsironis and is, therefore, not properly combinable.

That is, as the Court held in *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA, 1959), as described in MPEP §2143.01: “*If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.*”

Further, Applicant submits that the Examiner can point to no motivation or suggesting in the references to urge the combinations as alleged by the Examiner. Indeed, the Examiner supports the combinations by merely stating alleged benefits that are not supported in any of the references in the context of the primary reference Tsironis required to be modified or that have any chance of success in the constraints of the design of Tsironis.

### III. FORMAL MATTERS AND CONCLUSION

Applicant submits a drawing revision to label Figure 1 as "PRIOR ART", as requested by the Examiner.

In view of the foregoing, Applicant submits that claims 1-22 and 26, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

Date: \_\_\_\_\_

5/16/06



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**AMENDMENTS TO THE DRAWINGS:**

The attached sheet of drawings includes changes to Figure 1. This sheet, which includes Figure 1, replaces the original sheet including Figure 1. The label "PRIOR ART" has been added, as requested by the Examiner.

Attachments: 1 Replacement Sheet  
1 Annotated Sheet Showing Change

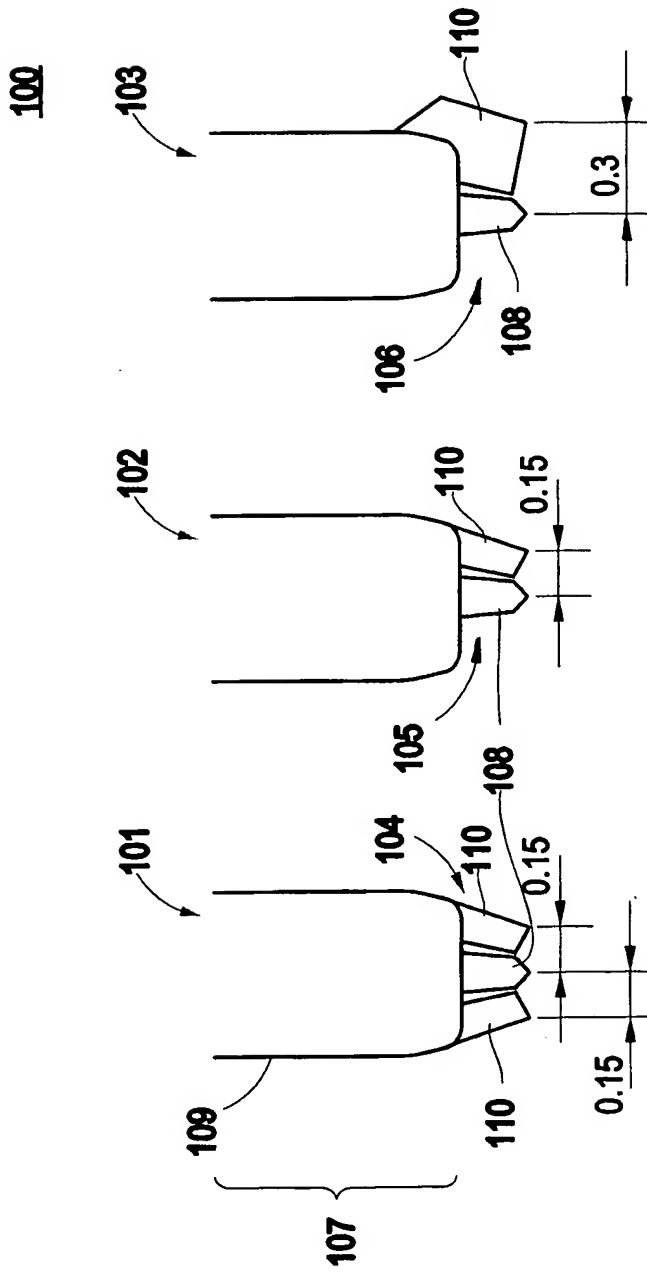


FIG.1

(PRIOR ART)